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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/627,645 | 07/28/2003 | Kazuhiro Kagami | 03500.017456 | 3604 |

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NEW YORK, NY 10112

EXAMINER

LEE, HSIEN MING

ART UNIT PAPER NUMBER

2823

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

| | | | |
|-------------------------------|--|-------------------------------|--|
| Application No. 10/627,645 | | Applicant(s) KAGAMI ET AL. | |
| Examiner Hsien-ming Lee | | Art Unit 2823 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/28/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

HSIEN-MING LEE
PRIMARY EXAMINER

[Signature]
6/1/2005

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Furuse et al.

(US 6,586,155).

In re claim 1, Furuse et al. expressly teach the claimed method of forming an electrode A and B and wiring 2 and 3 (Fig.2), comprising:

- **forming a base pattern A and B** on a glass substrate 1 (Figs.1-2);
- **absorbing an organic metallic compound** (i.e. a water-soluble metal organic compound formed of platinum, silver, palladium or copper in an organic solvent-type solvent, col. 3, lines 29-32) into the base pattern A and B; and
- **baking the base pattern A and B** in which the organic metallic compound is absorbed at 400 °C to 600 °C (col. 5, lines 34-36);
wherein the base pattern forming step includes: applying a photosensitive resin containing a water-soluble photosensitive resin component and a water-soluble metallic compound onto the glass substrate 1 (col. 1, lines 54-58 and col. 6, lines 19-24) and
- **exposing the photosensitive resin to an irradiating light** (col. 4, lines 49-51).

In re claim 11, Furuse et al. expressly teach the claimed method of forming an image-forming apparatus including a plurality of electron-emitting devices and an image-forming member for forming an image by irradiation of electron beam emitted from the electron-emitting devices (col. 5, lines 43-54), comprising:

- forming a plurality of electron-emitting devices and the image-forming member (Fig. 2), wherein at least one of an electrode A or B and a wiring 2 or 3 is formed by the method comprising:
- forming a base pattern A and B on a glass substrate 1 (Figs. 1-2);
- absorbing an organic metallic compound (i.e. a water-soluble metal organic compound formed of platinum, silver, palladium or copper in an organic solvent-type solvent, col. 3, lines 29-32) into the base pattern A and B; and
- baking the base pattern A and B in which the organic metallic compound is absorbed at 400 °C to 600 °C (col. 5, lines 34-36);

wherein the base pattern forming step includes: applying a photosensitive resin containing a water-soluble photosensitive resin component and a water-soluble metallic compound onto the glass substrate 1 (col. 1, lines 54-58 and col. 6, lines 19-24) and

- exposing the photosensitive resin to an irradiating light (col. 4, lines 49-51).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Furuse et al. (US 2003/0026959).

In re claim 1, Furuse et al. expressly teach the claimed method of forming an electrode A and B and wiring 2 and 3 (Fig.2), comprising:

- **forming a base pattern A and B** on a glass 1 (paragraph [0081] and Figs.1-2);
- **absorbing an organic metallic compound** (i.e. a water-soluble metal organic compound formed of platinum, silver, palladium or copper in an organic solvent-type solvent, paragraph [0032]) into the base pattern A and B; and
- **baking the base pattern A and B** in which the organic metallic compound is absorbed at 400 °C to 600 °C (paragraph [0047], line 21);
wherein the base pattern forming step includes: applying a photosensitive resin containing a water-soluble photosensitive resin component and a water-soluble metallic compound onto the glass substrate 1 (paragraphs [0029], [0030]) and
- **exposing the photosensitive resin to a irradiating light** (paragraph [0042]).

In re claim 11, Furuse et al. expressly teach the claimed method of forming an image-forming apparatus including a plurality of electron-emitting devices and an image-forming member for forming an image by irradiation of electron beam emitted from the electron-emitting devices (paragraphs [0022]~[0024]), comprising:

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- forming a plurality of electron-emitting devices and the image-forming member (Fig.2), wherein at least one of an electrode A or B and a wiring 2 or 3 is formed by the method comprising:
 - forming a base pattern A and B on a glass 1 (paragraph [0081] and Figs.1-2);
 - absorbing an organic metallic compound (i.e. a water-soluble metal organic compound formed of platinum, silver, palladium or copper in an organic solvent-type solvent, paragraph [0032]) into the base pattern A and B; and
 - baking the base pattern A and B in which the organic metallic compound is absorbed at 400 °C to 600 °C (paragraph [0047], line 21);wherein the base pattern forming step includes: applying a photosensitive resin containing a water-soluble photosensitive resin component and a water-soluble metallic compound onto the glass substrate 1 (paragraphs [0029], [0030]) and
- exposing the photosensitive resin to a irradiating light (paragraph [0042]).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furse et al. (US '155).

In re claim 2, Furse et al. (US '155) also suggest that the ratio is a consideration of increasing drying speed (col. 3, lines 63 through col. 4, line 7). Therefore, it would have been obvious to one of the ordinary skill in the art, at the time the invention was made, to optimize the compound ration to increase the drying and/or baking speed, since the ratio variation is obvious to the ordinary skill in the art for optimizing the subsequent processing step,

In re claim 3, Furse et al. (US '155) teach that the water-soluble metallic compound including rhodium, bismuth, ruthenium, vanadium, chromium, tin, lead or silicon (col. 3, lines 60-62).

In re claim 4, Furse et al. (US '155) teach that the organic metallic compound is a complex and a ligand thereof is a nitrogen-containing compound (col. 2, lines 3-5).

In re claim 5, Furse et al. (US '155) teach that the nitrogen-containing compound has at most 8 carbon atoms (col. 2, lines 6-9).

In re claim 6, Furse et al. (US '155) teach that the organic metallic compound is a platinum complex (col. 2, lines 1-2).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Furse et al. to US 2002/0012868 reads on claim 1.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hsien-ming Lee whose telephone number is 571-272-1863. The examiner can normally be reached on Tuesday-Thursday (8:00 ~ 6:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 571-272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hsien-ming Lee
Primary Examiner
Art Unit 2823

June 1, 2005

HSIEN-MING LEE
PRIMARY EXAMINER

6/1/2005